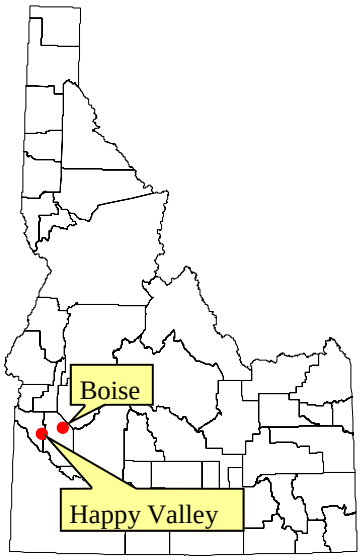
Idaho State Department of Agriculture

Happy Valley Water Quality Update
Spring 2005

Craig Tesch, P.G.

The Happy Valley monitoring project occurred in April 2005 as a result of concerns of possible ground and surface water contamination in the area surrounding a dairy approximately 2 miles southeast of Nampa, Idaho. Ten wells and four surface water sites were sampled for a variety of constituents, with a focus on nitrate (see map below). Well logs indicate static water levels range from 5-20 feet below ground level. Domestic wells are either cased open hole in a basalt sequence or screened in a lower sand and gravel layer.



In April 2005, no wells exceeded the EPA drinking water standard of 10 mg/L for nitrate; the maximum nitrate concentration in a well was 9.1 mg/L (see table below). One surface water sample, directly downstream of a packing plant, had a nitrate concentration of 19.7 mg/L.

Nitrate concentration distribution and statistics in all wells sampled, April 2005.

Concentration Range (mg/L)	April 2005 # wells (% wells)
0.0 to 5.0	2 (20%)
5.0 to 10.0	8 (80%)
> 10.0	0 (0%)
Total	10 (100%)

Nitrate Concentration Statistics April 2005	
Mean	6.2 mg/L
Median	6.3 mg/L
Maximum	9.1 mg/L

Happy Valley Nitrate Concentrations, April 2005